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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CAPUTO, LISA M

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No:

10/699,644

Applicant(s)

YOSHII, MASAHIRO

Examiner

Lisa M Caputo

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03052004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 2 and 14 are objected to because of the following informalities:

Regarding claims 2 and 4, please ensure that the grammar is correct. It seems as though some words are missing in order to clarify the meaning of the claim (i.e. in claim 2: "wherein the carrier rollers are rotated in the forward direction and in the reverse direction, instead the carrier rollers are rotated in the forward direction and stopped" and claim 4 "instead said card carriage controller rotates the carrier rollers in a direction in which the card is discharged and stops"; what is "instead" referring to?).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (U.S. Patent No. 6,494,364) in view of May (U.S. Patent No. 6,460,771).

Shepherd teaches a self-service terminal that employs a card transfer mechanism. Shepherd discloses a card processor that comprises a card carrier passage that has a plurality of pairs of carrier rollers (74, 76, 78, 80) arranged along it, a card carriage controller (controller 52) for controlling the carriage of the card by controlling the rotation of the carrier rollers, and a card data reader (read head 92) for

reading the data card, wherein the card carriage controller rotates the carrier rollers in a forward direction in which the card is carried into the interior of the main body until the card is inserted in the card carrier passage through an insertion port is held by a pair of carrier rollers closest to the insertion port and is then transported via carrier rollers to a read head and inner storage portion (see Figures 1-4, col 3, line 10 to col 5 line 40).

Regarding claims 1 and 3, although Shepherd does teach the use of sensors to discern where the card is within the transport mechanism, Shepherd fails to specifically teach that the card is stopped repetitively and taken in by a predetermined length by the main body (also while varying the rotational speed of the carrier rollers as recited in claim 3) before the carrier rollers are rotated forward to carry the card to a storage portion in the main body.

May teaches a motorized card reader module. May discloses that the carrier rollers are rotated in the forward direction and stopped repetitively so that the card is taken in by a predetermined length by the main body, and then transported in to a read head and storage portion in the main body. More specifically, a user inserts his banking card 30 into a card reader slot 32 in the user interface 12. The card reader slot 32 is aligned with entry/exit slot 20, so that on inserting his card 30, the card 30 is pinched by the rollers (not shown) in the card reader module 14d and guided to the transport mechanism 22. The controller 26 activates the transport mechanism 22 for a first time period, which typically lasts for 0.2 seconds, the controller 26 then de-activates the transport mechanism for a second time period, which typically lasts 0.1 seconds. The controller 26 continually activates and deactivates mechanism 22 until the card 30 is

fully enclosed by the module 14d; this ensures that the card 30 is transported in a start/stop manner. Thereafter, the controller 26 activates the mechanism 22 to ensure that the card 30 is transported continuously. This enables card reading head 24 to read the magnetic stripe (not shown) on the card 30 accurately. Conventional card reader modules 14d have a plurality of different sensors for detecting when the card 30 is fully enclosed by the card reader module 14d. For example, a sensor (not shown) is used to close a shutter once the card 30 is fully enclosed. This shutter is opened prior to ejecting the card 30. This sensor (not shown) could be used by the controller 26 to change the transport system from start/stop mode to continuous mode (see Figures 1-2, col 3 line 5 to col 4 line 21). Hence, May teaches the intermittent transport of a card by varying the rotational speeds of the carrier rollers.

In view of the teaching of May, it would have been obvious to one of ordinary skill in the art at the time the invention was made to transport the card intermittently (and via varying rotational speeds of the carrier rollers) because the act of having the card taken in during sporadic movement allows for the prevention of an unauthorized reader being able to read the card. By having repetitive, intermittent motion via the rollers which are the main mechanism for transporting the card, the card is transported safely to the authorized reader, which is favorable because consumers and businesses alike strive to maintain the integrity of magnetic cards. It is appropriate to combine May with Shepherd because both references teach of card transport mechanisms, and May is making up for the deficiency of Shepherd, who does not specifically disclose of intermittent transport.

Regarding claims 2 and 14, Shepherd fails to teach that the carrier rollers are rotated in the forward direction and stopped.

May teaches a motorized card reader module. May discloses that the carrier rollers are rotated in the forward direction and stopped repetitively. More specifically, a user inserts his banking card 30 into a card reader slot 32 in the user interface 12. The card reader slot 32 is aligned with entry/exit slot 20, so that on inserting his card 30, the card 30 is pinched by the rollers (not shown) in the card reader module 14d and guided to the transport mechanism 22. The controller 26 activates the transport mechanism 22 for a first time period, which typically lasts for 0.2 seconds, the controller 26 then deactivates the transport mechanism for a second time period, which typically lasts 0.1 seconds. The controller 26 continually activates and deactivates mechanism 22 until the card 30 is fully enclosed by the module 14d; this ensures that the card 30 is transported in a start/stop manner (see Figures 1-2, col 3, lines 43-67).

In view of the teaching of May, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the carrier rollers rotated in the forward direction and stop, because the card needs to be transported safely inside, and if there is a backward movement the card may be unwittingly removed from the machine, which is unfavorable because it can be read by an unauthorized source.

Regarding claims 4-6, Shepherd teaches of a first sensor for the pair of carrier rollers closest to the insertion port on the side of the insertion port (orientation sensor 86 near the entry slot) for detecting the card so that the carrier rollers can start rotation in the forward direction (see Figure 4, col 4).

Regarding claims 7-9, Shepherd teaches a second sensor (card read sensor 90) for detecting the card, that neighbors the pair of carrier rollers closest to the insertion point and is on the opposite side of the insertion port, wherein when the card is detected by the second sensor, the carriage controller determined that the card is held by a pair of carrier rollers (see Figure 4, col 4).

Regarding claims 10-12, Shepherd teaches a first sensor and a second sensor as taught above with regards to claims 4-9, and further, if the card is not detected by the first sensor (i.e. detection there is done) but is detected by the second sensor that the carrier controller determines that the card has been taken in by a predetermined length by the main body (i.e. the card has been taken in by a predetermined length because it has been transported to the inner card read sensor) (see Figure 4, col 4).

Regarding claims 13-16, Shepherd teaches a self-service terminal that employs a card transfer mechanism. Shepherd discloses a card processor that comprises a card carrier passage that has a plurality of pairs or carrier rollers (74, 76, 78, 80) arranged along it, a card carriage controller (controller 52) for controlling the carriage of the card by controlling the rotation of the carrier rollers, and a card data reader (read head 92) for reading the data card. In addition, Shepherd teaches that the carriage controller rotates the carrier rollers in the direction in which the card is discharged as recited in claims 15-16 (see Figures 1-4, col 3, line 10 to col 5 line 40).

Regarding claim 13, Shepherd fails to teach that when the card is being discharged that the rotation of the carrier rollers is stopped repetitively so that the card is discharged from the main body by a predetermined length.

May teaches that once a transaction (for example, withdrawal of cash) is complete and the card 30 is to be returned prior to dispensing the cash, the controller 26 activates the transport mechanism 22 so that the card 30 is ejected from the module 14d until it protrudes through the slot 32 in user interface 12. Once a part of the card 30 protrudes through the entry/exit slot 20, the controller 26 alternately activates and de-activates the transport mechanism 22 to ensure that any third party card reader located near the slot 32 in the user interface 12 is not able to read the ejected card 30, thereby preventing fraud (see Figures 1-2, col 4, lines 1-21). Hence, May teaches an intermittent ejection of the card.

In view of the teaching of May, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ intermittent transportation of the card on the way out as well because the unauthorized reader is able to read a magnetic stripe card on the way out as well, which must be prevented for both the consumer and business.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lisa M. Caputo** whose telephone number is **(571) 272-2388**. The examiner can normally be reached between the hours of 8:30AM to 5:00PM Monday through Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached at **(571) 272-2398**. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**lisa.caputo@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published

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in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

the

LMC

March 7, 2004

Diane I. Lee

**DIANE I. LEE
PRIMARY EXAMINER**